Claims

[c1]   1. A method of inter-frame Y/C separation, adapted for NTSC system, comprising:

sampling a composite video signal for temporarily storing a plurality of sampled data $F_m P_{x,y}$, wherein the $F_m P_{x,y}$ represents data of the y pixel at the x line of the frame m, and the m, x and y are integers larger than, or equal to, 0;

measuring a plurality of luma data $Y_{x,y}$ by a $F_{m+1} P_{x,y}$, the $F_m P_{x,y}$, a $F_{m-1} P_{x,y}$ and a $F_{m-2} P_{x,y}$, wherein $Y_{x,y}$ represents luma data of the y pixel of the x line; and

measuring a plurality of chroma data $C_{x,y}$ by the $F_{m+1} P_{x,y}$, the $F_m P_{x,y}$, the $F_{m-1} P_{x,y}$ and the $F_{m-2} P_{x,y}$, wherein $C_{x,y}$ represents chroma data of the y pixel of the x line.

[c2]   2. The method of inter-frame Y/C separation of claim 1, wherein a formula for measuring the luma data is:

$$Y_{x,y} = (F_{m+1} P_{x,y} + F_m P_{x,y} + F_{m-1} P_{x,y} + F_{m-2} P_{x,y})/4.$$

[c3]   3. The method of inter-frame Y/C separation of claim 1, wherein the step of sampling the composite video signal is performed by 4 folds the frequency of a sub-carrier signal, and the phase of the sub-carrier signal is 0, 0.5π, π, or 1.5π.

[c4]   4. The method of inter-frame Y/C separation of claim 3, wherein a formula for measuring the chroma data is:

$$C_{x,y} = \pm(F_m P_{x,y} + F_{m-2} P_{x,y} - F_{m+1} P_{x,y} - F_{m-1} P_{x,y})/4.$$

[c5]   5. The method of inter-frame Y/C separation of claim 4, wherein the chroma data $C_{x,y}$ are the chroma dataof the frame m.